

PRODUCT INFORMATION PACKET

Model No: TCA0751AE211GAA009

Catalog No: R506B

75.0 kW General Purpose Low Voltage IEC Motor, 3 phase, 3600 RPM, 230/460 V, 280S Frame, TEFC
Cast Iron IE3 Efficiency Motors



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REGAL



Nameplate Specifications

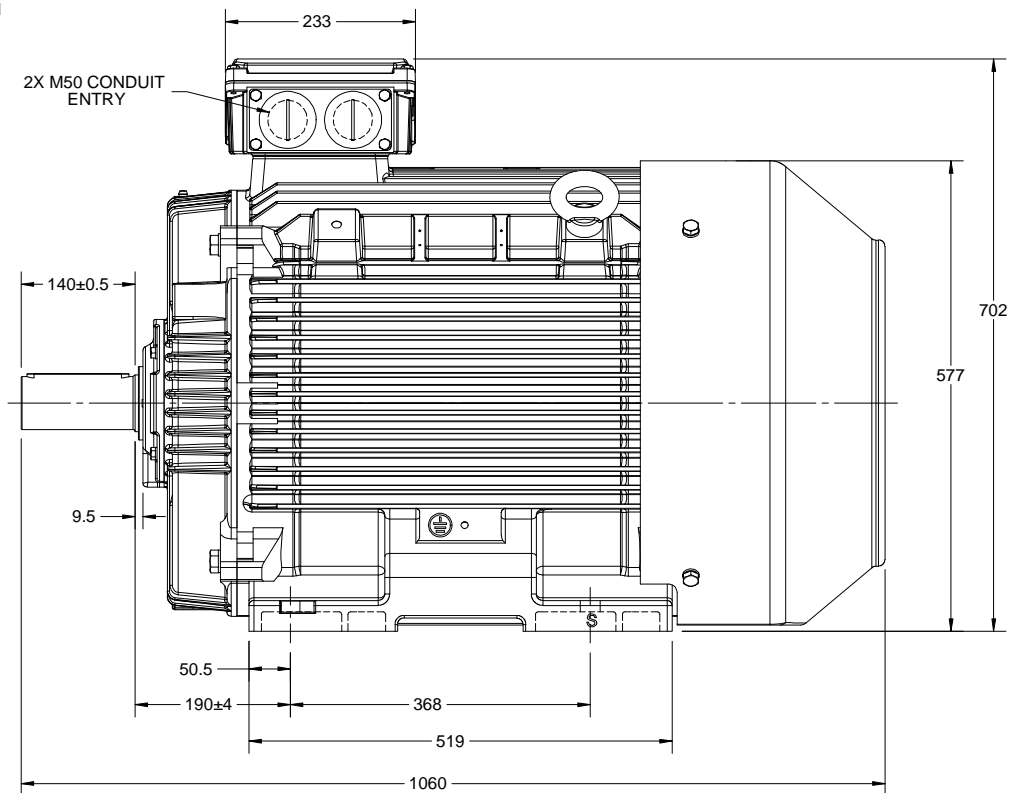
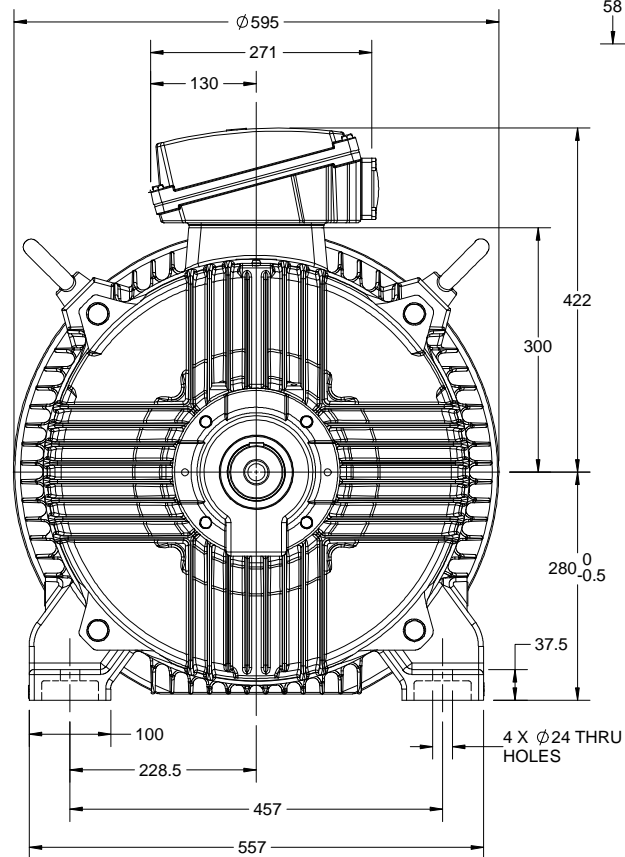
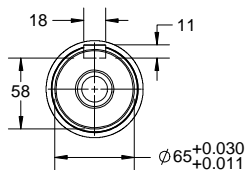
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|------------------------|---------------|----------------------------|-----------------------------|
| Output HP | 100 Hp | Output KW | 75.0 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 222.0/111.0 A | Speed | 3580 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 94.1 % | Power Factor | 90 |
| Duty | Continuous | Insulation Class | F |
| Design Code | N (IEC) | KVA Code | F |
| Frame | 280S | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6314 | Opp Drive End Bearing Size | 6314 |
| UL | Recognized | CSA | N |
| CE | Y | IP Code | 55 |

Technical Specifications

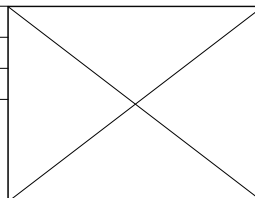
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|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 2 | Rotation | Reversible |
| Resistance Main | .06 Ohms | Mounting | B3 |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | IEC | Overall Length | 41.73 in |
| Frame Length | 21.61 in | Shaft Diameter | 2.559 in |
| Shaft Extension | 5.51 in | Assembly/Box Mounting | F3 |

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OUTLINE



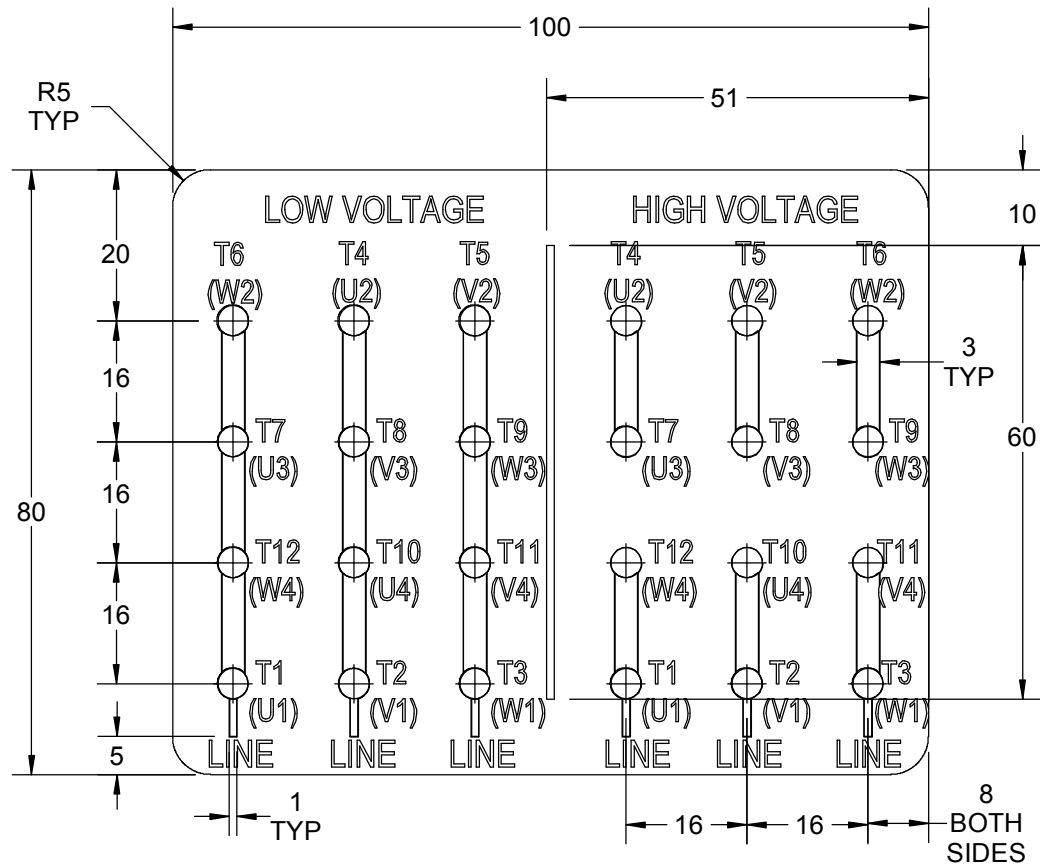
| | | |
|--|--------------------|--------------------|
| DRAWING REVISION A | REVISION BY LK | DATE 05/12/2018 |
| ECO ECO-0157830 | APPROVED BY JAY | DATE 05/12/2018 |
| ECO DESCRIPTION NEW DRAWING RELEASE <small>COPYRIGHT REGAL BELDOT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELDOT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small> | | |



| |
|--------------------|
| DRAWN BY LK |
| DATE 05/12/2018 |
| APPROVED BY JAY |
| DATE 05/12/2018 |
| REFERENCE |

| | |
|---|-----------------|
| marathon Motors | |
| DESCRIPTION OUTLINE | |
| IEC-280S-2P-B3 MOTOR TYPE: TEFC-CAST IRON | |
| MATERIAL | PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B |
| DRAWING NUMBER SS557725 | SHEET 1 OF 1 |

| GENERAL TOLERANCE | | |
|-------------------|---------|------|
| LINEAR DIM | >0~6 | ±0.1 |
| | >6~30 | ±0.2 |
| | >30~120 | ±0.3 |



- NOTES:
1. PRESSURE-SENSITIVE ADHESIVE TAPE COATED WITH ANTI-ADHESIVE.
 2. YELLOW COLOR BACK GROUND LETTERS WILL BE BLACK.
 3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
 4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T12 & U1-U4,V1-V4& W1-W4 OF ARIAL WITH 3mm SIZE
 5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

| | | | | | |
|---|---------------------------|---------------------------|-----------|---------------------------|---|
| DRAWING REVISION C | REVISION BY NIV | DATE 05/03/2019 | | DRAWN BY NIV | Regal Beloit America, Inc. |
| ECO ECO-0162986 | APPROVED BY JAY | DATE 05/03/2019 | | DATE 29/01/2019 | |
| ECO DESCRIPTION UPDATED DRAWING | | | | APPROVED BY JAY | DESCRIPTION CONNECTION DIAGRAM 12 LEAD -DELTA CONNECTION |
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| | | | REFERENCE | SIZE A | DRAWING NUMBER 8442000677 |

P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 480

CERTIFICATION DATA SHEET

| | | | |
|-----------------------|-------------|---------------------------|-------------------|
| CUSTOMER: | | CUSTOMER P.O. #: | |
| ORDER #: | | REFERENCE MODEL #: | TCA0751AE21TGA009 |
| CONN. DIAGRAM: | 8442000677 | CAT #: | R506B |
| OUTLINE: | SS557725 | CUSTOMER PART #: | |
| WINDING: | IE3L2802201 | MOUNTING: | F3 |
| SPEED: | | | |

TYPICAL MOTOR PERFORMANCE DATA

| | | | | | | | | | |
|-----------|--------------------|------------------------|--------------------|----------------------|------------------------|--------------------|------------------|--------------------|--------------|
| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN | |
| 100 | 75 | 3600 | 3580 | 280S | TEFC | TCA 280S02 | F | N | |
| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
| 3 | 60/50 | 230/460#200/400 | 222/118/190/95 | LINE OR INVERTER | CONT | F | 1.15 | 40 | 3300 |
| | F.L. EFF | F.L. PF | 3/4 LD EFF | 94.1 | 1/2 LD EFF | 93.0 | GTD EFF | ELECT. TYPE | |
| | 94.1 | 90.0 | 3/4 LD PF | 88.0 | 1/2 LD PF | 83.0 | 93.2 | SO CAGE INV RATED | |
| | F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) | | | | |
| | 147 LB-FT | 692 | 209 LB-FT | 142% | 379 LB-FT | 238% | 80 | | |
| | @ 3 FT. DBA | POWER DBA | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT | | |
| | 80 | 89 | 28.0 LB-FT² | 28 LB-FT² | 15 SEC. | 2 | 737 LB. | | |

*** SUPPLEMENTAL INFORMATION ***

| | | | | | | | | |
|------------------------|-------------------------|-------------------|--------------------------|--------------------|---------------------------|-----------------------|----------------|-----------------|
| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
| STANDARD | STANDARD | B3 | HORIZONTAL | NO | NONE | NO | NONE | BLUE - RAL 5014 |
| BEARINGS | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL | | |
| DE BALL 6314 | BALL SG-S5-V100 | STANDARD IEC | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON | | |

| | | | | | | |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------------|----------------------|
| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
| NONE | NOT | NONE | NONE | NONE | FALSE | NA |
| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
| 0.04 | 0.014 | 0.213 | 0.238 | 8.984 | 0.090 | ODE |

| | |
|----------------------|--|
| * N O T E S * | |
| | INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE |
| | ENCODER: NONE |
| | BRAKE: NONE |
| | FT-LB: NONE NA NONE PPR |
| | VOLTAGE: NONE NA NONE HZ: |

PREPARED BY: Fareeda Dudekula
DATE: 5/29/2019
UL: V-LI-ME-INS CONST UL REC